

Claims

1. Pump for pumping liquids, especially oil, from deep wells, with a screw pump, which is driven by a submersible motor, the driving spindle (4), to which several, preferably three screw-shaped rotors (5) are assigned, being constructed as a sealing spindle, and, for intercepting the axial thrust, hydraulic supporting bearings (8), the inlet openings (12) of which are protected against wear particles by a screen (11), being disposed on the screw-shaped rotors (5) on the suction side and connected over bypass pipelines (9) with the pressure side (10).

2. The pump of claim 1, characterized in that the screw-shaped rotors (5) discharge into an expanded pressure space (10), in the peripheral wall of which, covered with a filter (11), the inlet openings (12) of the bypass pipeline are disposed.

3. The pump of claim 2, characterized in that the pressure space (10) has an essentially triangular cross section with rounded-off corners, which embrace the screw-shaped rotors (5).

4. The pump of claims 2 or 3, characterized in that the expanded pressure space (10) is connected over axial boreholes (13) with the connecting space (14) to the conveying riser (15).

5. The pump of one of the claims 1 to 4, characterized in that, on the inside, the surface of the housing of the screw pump (1) has a wear-resistant surface.

6. The pump of claim 5, characterized in that the inner surface (6) of the screw pump (1) has a wear-resistant coating (7).

7. The pump of one of the claims 1 to 6, characterized in that the housing (3) of the screw pump has a lateral suction inlet opening (16) on the suction side for each screw-shaped rotor (5).